

Translation

PATENT COOPERATION TREATY

PCT/FR2003/003762



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 18594MLR44FD	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/003762	International filing date (day/month/year) 17 décembre 2003 (17.12.2003)	Priority date (day/month/year) 20 décembre 2002 (20.12.2002)
International Patent Classification (IPC) or national classification and IPC G21F 5/005, B23K 10/02		
Applicant COMPAGNIE GENERALE DES MATIERES NUCLEAIRES		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 18 juin 2004 (18.06.2004)	Date of completion of this report 10 May 2005 (10.05.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/003762

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages _____ 1-14 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____ 1-14 _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the drawings:
 pages _____ 1/3-3/3 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR 03/03762

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-14	YES
	Claims		NO
Inventive step (IS)	Claims	1-14	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: US-A-5 346 096 (DIERSCH RUDOLF ET AL) 13

September 1994 (1994-09-13)

D2: GB 664 410 A (FIRESTONE TYRE & RUBBER COMPANY LIMITED) 9 January 1952 (1952-01-09)

D3: US-A-3 890 482 (DIBENEDETTO) 17 June 1975 (1975-06-17)

D4: EP-A-0 774 761 (COMPAGNIE GENERALE DES MATIERES NUCLEAIRES) 21 May 1997 (1997-05-21)

1. Claims 1-9

1.1 D1, which is considered the prior art closest to the subject matter of independent claim 1, describes (the references between parentheses apply to said document):

an essentially cylindrical body having a base, axial walls and an open axial upper end (n° 1', 10, figure 3),

a cover with walls intended to be arranged at the axial upper end of said body, opposite the axial walls thereof and extending away from same (n° 11, figure 3),

the implementation thereof in a hostile environment (column 1, lines 46-55, figure 3), including the following two sequential steps:

placing the two metallic components in mutual abutment (n° 10, 11, figure 3) and

carrying out a continuous, deep welding over the circumference of said two metallic components, at the wall ends thereof.

Consequently, the subject matter of claim 1 differs from the known method in that:

the implementation in a hostile environment is automated and remotely controlled, the opposite walls being kept in mutual engagement.

Therefore, the subject matter of claim 1 is novel (PCT Article 33(2)).

1.2 The problem that the present invention aims to solve can therefore be considered to be that of optimising the positioning of the cover on the body of the container.

The solution to said problem, as proposed in claim 1 of the present application, is considered to involve an inventive step (PCT Article 33(3)) for the following reasons:

The prior art does not explicitly describe a method for providing a closed container in a hostile environment, wherein the steps of positioning the cover on the body of said container are automated. A person skilled in the art, seeking to solve the above-mentioned problem, must

therefore exercise an inventive skill.

Consequently, the subject matter of claim 1 is inventive (PCT Article 33(3)).

1.3 Claims 2-9 are dependent on claim 1, and therefore also meet, as such, the PCT requirements of novelty and inventive step.

2. Claims 10, 11

2.1 Document D1, which is considered the prior art closest to the subject matter of claim 10, describes (the references between parentheses apply to said document):

the components of the closed container (see paragraph 1 above),

a groove for receiving the weld (n°15, figure 1),

an end located below the welding bead (n°7, figure 1).

Consequently, the subject matter of claim 10 differs from this known device in that:

the inner structure comprises an abutment guide including at least one exhaust channel, the body or the cover comprising at least one sealed exhaust vent.

Therefore, the subject matter of claim 10 is novel (PCT Article 33(2)).

2.2 The problem that the present invention is intended to solve can therefore be considered to be that of guiding the cover during the positioning thereof on the body of

the container and of discharging the gas generated during the welding step.

The solution to said problem, as proposed in claim 10 of the present application, is considered inventive (PCT Article 33(3)) for the following reasons:

the prior art does not explicitly describe a closed container with an abutment guide and an exhaust vent. A person skilled in the art, seeking to solve the above-mentioned problem, must therefore exercise an inventive skill. Consequently, the subject matter of claim 10 is inventive (PCT Article 33(3)).

2.3 Claim 11 is dependent on claim 10 and therefore also meets, as such, the PCT requirements of novelty and inventive step.

3. Claims 12, 13

3.1.1 Document D1 describes a component comprising:

(a) an essentially cylindrical body (10, figure 3) having a base, axial walls and an open axial upper end,

(b) a cover (11, figure 3) of relatively complex shape, with a wall intended to be arranged at the axial upper end of said body, opposite the axial wall thereof and extending away from same;

wherein the components (a) and (b) are intended to be secured to one another to provide a sealed container with a high mechanical strength (column 1, preamble).

Consequently, the subject matter of claim 12 differs from

said component in that:

the inner structure of one of said components comprises an abutment guide on the circumference thereof, and said body and/or said cover have at least one exhaust vent.

Therefore, the subject matter of claim 12 is novel (PCT Article 33(2)).

3.1.2 The problem that the present claim proposes to solve can therefore be considered to be that of optimising the positioning of the cover on the body of the container.

The solution to said problem, as proposed in claim 12 of the present application, is considered to involve an inventive step (PCT Article 33(3)) for the following reason:

as mentioned in paragraph 1.2 above, the prior art does not explicitly describe a method for providing a closed container in a hostile environment and including, in particular, the step of positioning the cover on the body of said container. A person skilled in the art, seeking to solve the above-mentioned problem, must therefore exercise an inventive skill. Consequently, the subject matter of claim 12 is inventive (PCT Article 33(3)).

3.2 Claim 13 is dependent on claim 12, and therefore also meets, as such, the PCT requirements of novelty and inventive step.

4. Claim 14

4.1 D1 describes a metallic insert (5, figure 3) to be welded to the circumference of the inner structure of the

body (10, figure 3), at a point where said body has an essentially cylindrical shape (figure 3) and where said body and said cover are intended to be welded together.

Consequently, the subject matter of claim 14 differs from said metallic insert in that: the structure thereof has, on its outer circumference, a groove provided with an exhaust channel.

Therefore, the subject matter of claim 14 is novel (PCT Article 33(2)).

4.2 The problem that the present claim is intended to solve can therefore be considered to be that of improving weld quality by minimising the amount of gas generated by the welding operation carried out at said weld.

As indicated in paragraph 2.2 above, the prior art does not explicitly describe a metallic insert to be welded to the circumference of the inner structure of the body or the cover of a metallic container, and having an exhaust vent. A person skilled in the art must therefore exercise an inventive step to solve the stated problem.

Consequently, the subject matter of independent claim 14 is inventive (PCT Article 33(3)).